# **TRANSISTORIZED** VOLT-OHM-MILLIAMMETER **MODELS TVM 4**





TRANSISTORIZED VERSION OF COMBINED VACUUM TUBE VOLTMETER (VTVM) AND VOM WITHSTANDS 500 TIMES OVERLOAD ON VOLTMETER

## **FEATURES**

- High Input Impedance 2 Megohms Per Volt low ranges, 36 Megohms high ranges
- Sensitive Voltage Scales-150 MV D-C Full Scale
- Meter Movement Burn-out Proof Solid State Protection
- 30 Ranges for Measurement of Voltage, Current and Resistance
- Linear, Stable, Accurate, Repeatable
- Solid State Circuitry
- Long Battery Life-Less than 1 Milliampere Amplifier Battery Drain

#### **APPLICATIONS**

- General Purpose Laboratory VOM
- Measurements in High Impedance Circuits
- Low Voltage Measurements on Solid State Circuits
- Floating Meter Isolated from A-C Ground
- Field Service
- Differential Measurements at High Potential
- Tautband meter

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## MODEL TVM 4 **SPECIFICATIONS**

	0-0.15V, 0.5V, 1.5V, 5V,
Voltage Ranges	
D-c	0-0.15V, 0.5V, 1.5V, 5V, 15V, 50V, 150V, 500V, 1500V
А-с	0-1.5V, 5V, 15V, 50V, 150V, 500V, 1500V
Resistance Ranges	R x 1 (10 ohm center), R x 10 (100 ohm center), R x 100 (1K center), R x 1K (10 K center), R x 10K (100 K center), R x 100K (1 meg center)
D-c Current	0-0.15 ma, 0.5 ma, 1.5 ma, 5 ma, 15 ma, 50 ma, 0.15 amp, 0.5 amp, 1.5 amp
Accuracy	
D-C Volts	± 3% of full scale
A-c Volts	± 5% of full scale
Current	± 3% of full scale
D-c Resistance	± 3° linear arc
Input Impedance	
D-c Volts	0.15 volt range, greater than 500K 0.5 volt range, greater than 1.5 meg 1.5 volt range, greater than 5 meg 5.0 volt range, greater than 17 meg Other ranges, greater than 36 meg
A-c Volts	Approx 250 K res. shunted by 200 pf
Meter Movement	50 µa full scale, tautband movement
Scale Length	
Dimensions	3.8 inches
	6-7/8 L 5-1/4 W 2-1/4 D
Net Weight (With Batteries)	2-3/4 lbs.

# DESCRIPTION

THE AUL INSTRUMENTS TRANSISTORIZED VOLT-OHM-MILLIAMMETER combines and exceeds the most desirable features of conventional multimeters and vacuum tube voltmeters. A unique solid state design achieves high input impedance, stability and sensitivity with a battery life approaching the battery's normal shelf life. The meter is virtually burn-out proof, offering protection against damage to the transistors and to the meter movement. The meter sensitivity provides an order of magnitude improvement over that of meters in common use, and an even higher degree of improvement in stability. One percent resistors and a tautband meter movement together with a solid state amplifier, the linearity of which is independent of supply voltage, insure accurate performance. Minimum power dissipation, long life components and protective circuitry insure that the instrument will hold its calibration under the most adverse operating conditions in the hands of inexperienced operating personnel.